DB Name	Query	Hit Count	Set Name
USPT	l7 or l9 or l13	14	L14
USPT	(l10 or l11) and l12	7	L13
USPT	(gel$ or $methylcellulose or CMC or HPMC) same inject$ same (implant$ or microparticle or particul$ or microspher$ or microdispers$ or dispers$)	4734	L12
USPT	(bioresorbab$ or bioabsorbab$) with (microsphere or microparticle or microdispers$ or dispers$) with polymer$	23	L11
USPT	($lactic or $glycolic or $caprolactone) same (microsphere or microparticle or microdispers$ or dispers$) same (molecular adj (weight or mass)) same viscosity	77	L10
USPT	l7 or l8	7	L9
USPT	l4 and l5	5	L8
USPT	l3 or l6	6	L7
USPT	l5 and l2	4	L6
USPT	($lactic with $glycolic with $caprolactone) and (523/$)!.CCLS.	44	L5
USPT	l1 and (microsphere or microparticle or microdispersion)	30	L4
USPT	l1 and l2	6	L3
USPT	(microsphere or microparticle or microdispersion) with gel$	1225	L2
USPT	((523/113)!.CCLS.)	275	L1

WEST

Generate Collection

Search Results - Record(s) 1 through 14 of 14 returned.

☐ 1. Document ID: US 6066340 A

L14: Entry 1 of 14 File: USPT May 23, 2000

US-PAT-NO: 6066340
DOCUMENT-IDENTIFIER: US 6066340 A

TITLE: Process for the preparation of microspheres containing biologically active components

DATE-ISSUED: May 23, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Callegaro; Lanfranco	Padua	N/A	N/A	ITX
Romeo; Aurelio	Rome	N/A	N/A	ITX
Benedetti; Luca	Vicenza	N/A	N/A	ITX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Fidia S.p.A.	Abano Terme	N/A	N/A	ITX	03

APPL-NO: 8/ 169558
DATE FILED: December 20, 1993

PARENT-CASE:
This application is a continuation, of application Ser. No. 07/890,108 filed on May 29, 1992, now abandoned.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
IT	PD91A0102	May 31, 1991

INT-CL: [7] A61K 9/52
US-CL-ISSUED: 424/499; 424/490, 424/493, 514/951, 514/963
US-CL-CURRENT: 424/499; 424/490, 424/493, 514/951, 514/963
FIELD-OF-SEARCH: 424/489, 424/490, 424/493, 424/499, 514/951, 514/963

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4462983	July 1984	Azia et al.	N/A
4847091	July 1989	Illum	N/A
4853226	August 1989	Machida et al.	424/450
4904479	February 1990	Illum	424/490
4925673	May 1990	Steiner	424/484
4946870	August 1990	Partain, III et al.	424/449
4965353	October 1990	della Valle et al.	424/490
5008116	April 1991	Cahn	424/491
5073543	December 1991	Marshall et al.	514/21
5108759	April 1992	Ranney	424/499
5204108	April 1993	Illum	N/A
5629011	May 1997	Illum	424/434
5707644	January 1998	Illum	424/434
5804212	September 1998	Illum	N/A
5833891	November 1998	Subramaniam et al.	264/7
5856299	January 1999	Righetto et al.	514/8
5874029	February 1999	Subramaniam et al.	264/12
5879359	March 1999	Dorigatti et al.	606/152

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
47099	June 1990	AUX
A1 0122036	October 1984	EPX
0251905	January 1988	EPX
WO 8703197	June 1987	WOX
WO 8809163	December 1988	WOX
WO 8903207	April 1989	WOX
WO 9106282	May 1991	WOX

OTHER PUBLICATIONS

Sugibayashi et al., Biomaterials 1982, vol. 3, pp. 181-186 (Jul.).
Ratcliffe et al., J. Pharm. Pharmacol. 36:431-436 (1984).
Alphabetical List of Compounds.
Greissman et al, Intensive Care Med 22:495-499 (1996).
Illum, "Microspheres As a Potential Controlled Release Nasal Drug Delivery System," 205-210.
Fisher et al., J. Pharm. Pharmacol. 37:38-41 (1985).
Davis et al., "Microspheres as Controlled-Release Systems for Parenteral and Nasal Administration", pp. 201-213.
Illum et al., International Journal of Pharmaceutics, 46:261-265 (1988).
Bodmeier et al., Pharmaceutical Research, vol. 6, No. 5, 1989.
Hermens et al., Pharmaceutical Research, vol. 7, No. 2, 1990.
Illum et al., International Journal of Pharmaceutics, 39:189-199 (1987).
M. Bendetti, et al., (1990) Journal of Controlled Release, 13:33-41.
Langer, (1990) Science, 249:1527-1533.

ART-UNIT: 167
PRIMARY-EXAMINER: Harrison; Robert H.
ATTY-AGENT-FIRM: Birch, Stewart, Kolasch & Birch, LLP

ABSTRACT:

The present invention is directed to a microsphere for the controlled release of a biologically active molecule which comprises a biologically active molecule and an ester of hyaluronic acid or mixtures of said esters of hyaluronic acids, and wherein said biologically active molecule is surrounded by or adhered to said ester of hyaluronic acid, and wherein said microsphere has a diameter of between 1

.mu.m to 100 .mu.m.

23 Claims, 8 Drawing figures

2. Document ID: US 6045830 A

L14: Entry 2 of 14 File: USPT Apr 4, 2000

US-PAT-NO: 6045830
DOCUMENT-IDENTIFIER: US 6045830 A

TITLE: Method of production of sustained-release preparation

DATE-ISSUED: April 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Igari; Yasutaka	Hyogo	N/A	N/A	JPX
Takada; Shigeyuki	Hyogo	N/A	N/A	JPX
Kosakai; Hiroshi	Kanagawa	N/A	N/A	JPX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Takeda Chemical Industries, Ltd.	Osaka	N/A	N/A	JPX	03

APPL-NO: 8/ 704991
DATE FILED: August 29, 1996

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	7-226457	September 4, 1995

INT-CL: [7] A61K 9/16, A61K 47/34
US-CL-ISSUED: 424/501; 424/426, 428/402.24
US-CL-CURRENT: 424/501; 424/426, 428/402.24
FIELD-OF-SEARCH: 424/426, 424/428, 424/486, 424/501, 525/450, 428/402, 428/402.24, 514/772.7

REF-CITED:

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
0 145 240	June 1985	EPX
0 178 824	April 1986	EPX
0 442 671	August 1991	EPX
0 586 238	March 1994	EPX
4-217914	August 1992	JPX
2 246 514	February 1992	GBX
89/04673	June 1989	WOX
96/07399	March 1996	WOX

OTHER PUBLICATIONS

Keipert et al., "Antiglaumakotosaaltige Ophthalmika Mit Prolongierter Wirkung Aug Basis Makromolekularer Hilfsstoffe", Die Pharmazie, vol. 45, No. 8, (1990), pp. 594-595.

ART-UNIT: 167
PRIMARY-EXAMINER: Webman; Edward J.
ATTY-AGENT-FIRM: Foley & Lardner

ABSTRACT:

A method of production of sustained-release microcapsules that comprises obtaining microcapsules comprising a bioactive substance that are encapsulated with a biodegradable polymer, and thermally drying the obtained microcapsules at a temperature not lower than the glass transition temperature of the biodegradable polymer for about 24 to about 120 hours to produce the sustained-release microcapsules comprising, relative to the weight of the sustained-release microcapsule, not less than 60% (w/w) of the biodegradable polymer, possessing pharmaceutical characteristics clinically excellent in that a bioactive substance is released at constant rate over a very long period of time from just after administration with dramatically suppressed initial release of the bioactive substance in excess just after administration and with minimum remaining organic solvent.

16 Claims, 0 Drawing figures

☐ 3. Document ID: US 6039970 A

L14: Entry 3 of 14 File: USPT Mar 21, 2000

US-PAT-NO: 6039970
DOCUMENT-IDENTIFIER: US 6039970 A

TITLE: Process for the preparation of microspheres containing biologically active components

DATE-ISSUED: March 21, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Callegaro; Lanfranco	Padua	N/A	N/A	ITX
Romeo; Aurelio	Rome	N/A	N/A	ITX
Benedetti; Luca	Vicenza	N/A	N/A	ITX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Fidia S.p.A.	Abano Terme	N/A	N/A	ITX	03

APPL-NO: 9/ 231353
DATE FILED: January 13, 1999

PARENT-CASE:
This application is a divisional of Ser. No. 08/169,558 filed on Dec. 20, 1993, which is a continuation of Ser. No. 07/890,108 filed on May 29, 1992, abandoned.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
IT	PD91A0102	May 31, 1991

INT-CL: [7] A61K 9/16
US-CL-ISSUED: 424/434; 424/489, 424/499, 514/54, 514/866
US-CL-CURRENT: 424/434; 424/489, 424/499, 514/54, 514/866
FIELD-OF-SEARCH: 424/434, 424/489, 424/499, 514/54, 514/866

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4462983	July 1984	Azria et al.	N/A
4847091	July 1989	Illum	N/A
4853226	August 1989	Machida et al.	N/A
4904479	February 1990	Illum	N/A
4925673	May 1990	Steiner	N/A
4946870	August 1990	Partain, III et al.	N/A
4965353	October 1990	della Valle et al.	N/A
5008116	April 1991	Cahn	N/A
5073543	December 1991	Marshall et al.	N/A
5108759	April 1992	Ranney	N/A
5204108	April 1993	Illum	N/A
5629011	May 1997	Illum	424/434
5707644	January 1998	Illum	424/434
5804212	September 1998	Illum	424/434
5833891	November 1998	Subramaniam et al.	264/7
5856299	January 1999	Righetto et al.	514/8
5874029	February 1999	Subramaniam et al.	264/12
5879359	March 1999	Dorigatti et al.	606/152
5939323	August 1999	Valentini et al.	435/395

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
47099	June 1990	AUX
A1 0122036	October 1984	EPX
0251905	January 1988	EPX
WO 8703197	June 1987	WOX
WO 8809163	December 1988	WOX
WO 8903207	April 1989	WOX
WO 9106282	May 1991	WOX

OTHER PUBLICATIONS

Greissman et al, Intensive Care Med 22:495-499 (1996).
Illum, "Microspheres As a Potential Controlled Release Nasal Drug Delivery System," pp. 205-210.
Fisher et al., J. Pharm. Pharmacol. 37:38-41 (1985).
Sugibayashi et al., Biomaterials 1982, vol. 3, pp. 181-186 (Jul.).
Ratcliffe et al., J. Pharm. Pharmacol. 36:431-436 (1984).
Alphabetical List of Compounds.
Davis et al., "Microspheres as Controlled-Release Systems for Parenteral and Nasal Administration", pp. 201-213.
Illum et al., International Journal of Pharmaceutics, 46:261-265 (1988).
Bodmeier et al., Pharmaceutical Research, vol. 6, No. 5, 1989.
Hermens et al., Pharmaceutical Research, vol. 7, No. 2, 1990.
Illum et al., International Journal of Pharmaceutics, 39:189-199 (1987).
M. Bendetti et al., Journal of Controlled Release, 13:33-41 (1990).
Langer, Science, 249:1527-1533 (1990).

ART-UNIT: 167
PRIMARY-EXAMINER: Harrison; Robert H.
ATTY-AGENT-FIRM: Birch, Stewart, Kolasch & Birch, LLP

ABSTRACT:

The present invention is directed to a microsphere for the controlled release of a biologically active molecule which comprises a biologically active molecule and an ester of hyaluronic acid or mixtures of said esters of hyaluronic acids, and wherein said biologically active molecule is surrounded by or adhered to said ester of hyaluronic acid, and wherein said microsphere has a diameter of between 1 .mu.m to 100 .mu.m.

6 Claims, 8 Drawing figures

☐ 4. Document ID: US 5955096 A

L14: Entry 4 of 14 File: USPT Sep 21, 1999

US-PAT-NO: 5955096
DOCUMENT-IDENTIFIER: US 5955096 A

TITLE: Methods and compositions for enhancing the bioadhesive properties of polymers using organic excipients

DATE-ISSUED: September 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Santos; Camila A.	Newport	RI	N/A	N/A
Jacob; Jules S.	Taunton	MA	N/A	N/A
Hertzog; Benjamin A.	Providence	RI	N/A	N/A
Carino; Gerardo P.	Providence	RI	N/A	N/A
Mathiowitz; Edith	Brookline	MA	N/A	N/A

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Brown University Research Foundation	Providence	RI	N/A	N/A	02

APPL-NO: 8/ 670326
DATE FILED: June 25, 1996

INT-CL: [6] C08G 67/04, A61K 9/00, A61F 2/00
US-CL-ISSUED: 424/434; 424/486, 424/491, 424/497, 424/499, 523/105, 523/113, 528/271, 528/272, 525/165, 525/419
US-CL-CURRENT: 424/434; 424/486, 424/491, 424/497, 424/499, 523/105, 523/113, 525/165, 525/419, 528/271, 528/272
FIELD-OF-SEARCH: 424/434, 424/491, 424/498, 528/271, 523/105, 523/113, 525/419

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
2675619	April 1954	Cone	33/449
2677700	May 1954	Jackson et al.	568/618
2979578	April 1961	Curtis	200/196
3036118	May 1962	Jackson et al.	560/182
3535307	October 1970	Moss et al.	536/18.3
3829506	August 1974	Schmolka et al.	568/624
4757128	July 1988	Domb et al.	528/271
4861627	August 1989	Mathiowitz et al.	427/213.31
4938763	July 1990	Dunn et al.	600/37
4976968	December 1990	Steiner	424/491
4997904	March 1991	Domb	424/426
5019400	May 1991	Gombotz et al.	424/497
5173298	December 1992	Meadows	424/427
5175235	December 1992	Domb et al.	528/271
5271961	December 1993	Mathiowitz et al.	424/491
5474768	December 1995	Robinson	424/78.31
5518731	May 1996	Meadows	424/427
5611344	March 1997	Bernstein et al.	424/673

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
0 333 523 A2	September 1989	EPX
91/06286	May 1991	WOX
91/06287	May 1991	WOX
WO 92/11871 A1	July 1992	WOX
93/21906	November 1993	WOX

OTHER PUBLICATIONS

Beck, et al., "A new long-acting injectable microcapsule system for the administration of progesterone," Fertil. & Steril., 31(5):545-55 (1979).
Benita, et al., "Characterization of drug loaded poly(d,l-lactide) microspheres," J. Pharm. Sci., 73(12):1721-24 (1984).
Chickering & Mathiowitz, "Bioadhesive microspheres: I. A novel electrobalance-based method to study adhesive interactions between individual microspheres and intestinal mucosa," J. Control. Release 34:251-61 (1995).
Duchene, et al., "Pharmaceutical and medical aspects of bioadhesive systems for drug administration," Drug Dev. & Ind. Pharm., 14(2&3):283-318 (1988).
Edelman, et al., "Perivascular and intravenous administration of basic fibroblast growth factor: Vascular and solid organ deposition," Proc. Natl. Acad. Sci., USA 30:1513-17 (1993).
Gurney, et al., "Bioadhesive intraoral release systems: design, testing and analysis," Biomaterials, 5:336-40 (1984).
Harada, et al., "Basic fibroblast growth factor improves myocardial function in chronically ischemic porcine hearts," J. Clin. Invest., 94(2):623-30 (1994).
Horowitz, M., "Mucopolysaccharides and Glycoproteins of the Alimentary Tract," Handbood of Physiology (C.F. Code, ed.), pp. 1063-85 (American Physiological Society 1967).
Labat-Robert & Decaeus, "Glycoproteine du mucus gastrique: structure, fonctions et pathologie," Pathologie et Biologie, 24:241 (Paris 1979).
Labhasetwar, et al., "Sotalol Controlled release systems for arrhythmias: In vitro characterization, in vivo drug disposition, and electophysiologic effects," J. Pharm. Sci., 83(2):156-64 (1994).
Lehr, et al., "Intestinal transit of bioadhesive microspheres in an situ loop in the rat--a comparative study with copolymers and blends based on poly(acrylic acid)," J. Controlled Rel., 13:51-62 (1990).
Li & Li, "Use of Enzymes in Elucidation of Structure," The Glycoconjugates (Horowitz, ed.), pp. 51-67 (Academic Press 1977).
Mathiowitz, et al., "Novel Microcapcules for delivery systems," Reactive Polymers,

6:275-83 (1987).
Mathiowitz, et al., "Morphology of polyanhydride microsphere delivery systems," J. Scanning Microscopy, 4(2):329-40 (1990).
Mikos, et al., "Interaction of polymer microspheres with mucin gels as a means of characterizing polymer retention on mucus," J. Colloid & Interfact Sci., 143(2):366-73 (1991).
Park, et al., "Alternative Approaches to Oral Controlled Drug Delivery: Bioadhesives and In-Situ Systems" Recent Advances in Drug Delivery Systems (Aderson & Kim, eds.), pp. 163-83 (Plenum Press 1983?).
Smart, et al., "An in vitro investigation of mucosa-adhesive materials for use in controlled drug deliver" J. Pharm. & Pharmacol., 36:295-99 (1984).
Spiro, R., "Glycoproteins," Annual Review of Biochemistry, 39:599-638 (Snell, ed. 1970).
Tutwiler, et al., "A pharmacologic profile of McN-3495 [N-(1-methyl-2-pyrrolidinylidene)-N-pheyyl-1-pyrrolidinecarboxyimidamide], a new orally effective hypoglycemic agent," Diabetes, 27:(8):856-67 (1978) .

ART-UNIT: 174
PRIMARY-EXAMINER: Yoon; Tae
ATTY-AGENT-FIRM: Arnall Golden & Gregory LLP

ABSTRACT:

Methods and compositions are provided for enhancing the bioadhesive properties of polymers used in drug delivery systems. The bioadhesive properties of a polymer are enhanced by incorporating an anhydride oligomer into the polymer to enhance the ability of the polymer to adhere to a tissue surface such as a mucosal membrane. Anhydride oligomers which enhance the bioadhesive properties of a polymer include oligomers synthesized from dicarboxylic acid monomers, preferably those found in Krebs glycolysis cycle, especially fumaric acid. The oligomers can be incorporated within a wide range of polymers including proteins, polysaccharides and synthetic biocompatible polymers. In one embodiment, anhydride oligomers can be incorporated within polymers used to form or coat drug delivery systems, such as microspheres, which contain a drug or diagnostic agent. The oligomers can either be solubilized and blended with the polymer before manufacture or else used as a coating with polymers over existing systems. The polymers, for example in the form of microspheres, have improved ability to adhere to mucosal membranes, and thus can be used to deliver a drug or diagnostic agent via any of a range of mucosal membrane surfaces including those of the gastrointestinal, respiratory, excretory and reproductive tracts.

32 Claims, 1 Drawing figures

☐ 5. Document ID: US 5814340 A

L14: Entry 5 of 14 File: USPT Sep 29, 1998

US-PAT-NO: 5814340
DOCUMENT-IDENTIFIER: US 5814340 A

TITLE: Controlled release systems and low dose androgens

DATE-ISSUED: September 29, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Labrie; Fernand	Quebec	N/A	N/A	CAX
Lepage; Martin	Quebec	N/A	N/A	CAX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Endorecherche Inc.	Quebec	N/A	N/A	CAX	03

APPL-NO: 8/ 484742
DATE FILED: June 7, 1995

PARENT-CASE:
RELATED APPLICATION This application is a division of U.S. pat. application Ser. No. 08/398,096, filed Mar. 3, 1995 which is in turn a division of U.S. pat. application Ser. No. 07/900,817 filed Jun. 24, 1992, now U.S. Pat. No. 5,434,146 which is in turn a continuation-in-part of U.S. pat. application Ser. No. 07/724,532, filed Jun. 28, 1991, now abandoned.

INT-CL: [6] A61K 31/56, A61K 31/58
US-CL-ISSUED: 424/489; 424/493, 424/497, 523/113, 428/402, 514/169, 514/170, 514/177, 514/179, 514/964
US-CL-CURRENT: 424/489; 424/493, 424/497, 428/402, 514/169, 514/170, 514/177, 514/179, 514/964, 523/113
FIELD-OF-SEARCH: 424/489, 424/493, 424/497, 523/113, 428/402, 514/169, 514/170, 514/177, 514/179, 514/964

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4071622	January 1978	Johnson	514/15
4472382	September 1984	Labrie	424/177
4522831	June 1985	Chatterton, Jr.	514/169
4624665	November 1986	Nuwayser	604/307
4760053	July 1988	Labrie	514/15
4775660	October 1988	Labrie	514/15
4775661	October 1988	Labrie	514/15
4863744	September 1989	Urquhart et al.	424/489
5023080	June 1991	Gupta	424/489

OTHER PUBLICATIONS

Albright, et al., In: the Parathyroid Glands & Metabolic Bone Disease, Williams & Williams Co: Baltimore, pp. 145-204 (1948).
Aloia et al., Metabolism 30:1076-1079 (1981).
Asselin et al., Cancer Res. 40:1612-1622 (1980).
Baran et al., Calif. Tissue Res. 26:103-106, 1978.
Bryan et al., Cancer 54: 2436-2440, 1984.
Bullock et al., Endocrinology 103: 1768-1782, 1978.
Chessnut et al. Metabolism 26: 267-277, 1977.
Chessnut et al., Metabolism 32:571-580, 1983.
Clavel et al., Eur J. Cancer Clin. Oncol. 18:821-826, 1982.
Cooperative Breast Cancer Group, JAMA 188, 1069-1072, 1964.
Cremonicini et al., Acta, Eur.Fertil. 7:248-314, 1976.
Cusan et al., J. Am. Acad. Dermatol. 23:462-469, 1990.
Dauvois & Labrie, Cancer Res. 51:3131-3151 (1991).
Dauvois, et al., Breast Cancer. Res. Treatment 14:299-306 (1989).
Dequaker & Geusens, Acta Endocrimol 271 (Suppl):45-52, 1985.
Dhem, A., Ars-Piret N., Waterschoot MP (1980) Curr. Med. res. Opin. 6: 606-613.
Dickson & Lippman, Endocr. Rev. 8:29-43, 1987.
Dixon et al., Clinical Endocrinology 30: 271-277, 1989.
Earl et al., Clin. Oncol. 10:103-109, 1984.
Engel et al., Cancer Res. 38: 3352-3364, 1978.
Engelsman et al., British J. Cancer 30: 177-181, 1975.
Ferriman & Gallwey, J.P. Clin Endocrimol. Metab 21: 1440-1447, 1961.
Finkelstein et al., J. Clin. Endocr. Metab. 69:776-783, 1989.
Francis, et al., Bone 7: 261-268 (1986).
Foresta et al., Horm. Metab. res. 15:206-207, 1983.

Foresta et al., Horm. Metab. Res. 15:56-57, 1983.
Goldenberg et al., JAMA 223: 1267-1268, 1973.
Greenspan et al., Ann. Int. Med. 110:526-531, 1989.
Greenspan et al., Ann Int. Med. 104:777-782, 1986.
Harrison et al., Metabolism 20:1107-1118, 1971.
Hollo et al., Lancet 2:1205, 1971.
Hilf. R., Anabolic-Androgenic Steroids and Experimental Tumors In: Handbook of Experimental Pharmacology, vol. 43, Anabolic-Androgenic Steroids, Springer-Verlag, Berlin 43 (1976) 191-210 and p. 725.
Johnson et al. Semin. Oncol. 13(suppl):15-19, 1986.
Kennedy et al., Cancer 21: 197-201, 197 (1967).
Kennedy, Hormone Therapy in Cancer Geriatrics 25: 106-112, 1970.
Klijn et al., J. Steroid Biochem. 20: 1381, 1984.
Krabbe et al., Arch. Dis. Child. 54, 950-953, 1979.
Krabbe et al., Arch. Pediat. Scand. 73:750-755, 1984.
Labrie, et al., Fertil. Steril. 31:29-34, 1979.
Lafferty et al., Ann. J. Med. 36: 514-528, 1964.
Lamb, Am. J. Sports Medicine 121, 31-38, 1984.
Lippman et al., Cancer 38: 868-874, 1976.
Lucas, Obstet. Gynecol. Surv. 29: 507-528, 1974.
Luthy et al., J. Steroid Biochem. 31: 845-852, 1988.
Mack et al., N. Engl. J. Medicine 294: 1262-1267, 1976.
Maass, H. et al. J. Ster. Biochem. 5: 734-749 (1975).
Manni et al., Cancer 48: 2507-2509, 1981.
Manni et al., Endocr., Rev. 7: 89-94 (1986).
McDermott & Kidd, End. Rev. 8:377-390, 1987.
Miller et al., Eur. J. Oncol. 21: 539-542, 1985.
Need et al., Mineral Electrolyte Metabolism 11:35, 1985.
Nicholson et al., J. Steroid Biochem. 23: 843-848, 1985.
Nicholson et al., Brit. J. Cancer 39: 268-273, 1979.
Odell and Swerdcoff, West. J. Med. 124:446-475 (1976).
Ogata et al., Endocrinology 87:421, 1970.
Plante et al., J. Steroid Biochem. 31: 61-64, 1988.
Poulin et al., Breast Cancer Res. Treatment 13:265-276, 1989.
Poyet and Labrie, Mol. Cell Endocrinol. 42: 283-288, 1985.
Poyet, et al., The Prostate 9: 237-246, 1986.
Puche & Rosmano, Calif. Tissue Res. 4:39-47, 1969.
Raynaud et al. Steroid Hormones, Agonists and Antagonists In: Mechanisms of Steroid Action, MacMillan Press, London, pp. 143-157 (1981).
Raynaud & Ojasso In: Innovative Approaches in Drug Research, Elsevier Sci. Publishers, Amsterdam, pp. 47-72, 1986.
Raynaud & Ojasso, J. Steroid Biochem. 25:811-833, 1986.
Raynaud, et al., J. Steroid Biochem 12: 143-157 (1980).
Rendina et al., Europ.J. Obstet Gynecol. Reprod. Biol. 17: 285-291, 1984.
Riggs et al., J. Clin. Invest. 67:328-335, 1987.
Riggs et al., J. Clin. Invest. 51:2659-2663, 1972.
Rigotti et al. JAMA 256:385-288, 1986.
Riis et al., Calif. Tissue Res. 37:213-217, 1985.
Rochefort and Chalbos, Mol. Cell Endocrinol. 36: 3-10, 1984.
Rodbard, Endocrinology 94:1427-1437, 1974.
Sandberg and Kirdoni, Pharmac. Ther. 36:263-307, 1988.
Saville Clin. End. Metab. 2:177-185 (1973).
Seeman et al., Am. J. Medicine 75:977-983, 1983.
Selbey et al., Clin. Sci. 69:265-271, 1985.
Simard et al., Mol. Endocrinol. 3:694-702, 1984.
Simard et al., Endocrinology 126:3223-3231, 1990.
Smith et al., N. Engl. J. Medicine 293: 1164-1167, 1975.
Smith and Walker, Calif. Tissue Res. 22 (Suppl.):225-228, 1976.
Tchekmedyan et al., Semin. Oncol. 13(Suppl):20-25, 1986.
Telimaa et al., Gynecol. Endocrinol. 1:13, 1987.
Teulings et al., Cancer Res. 40: 2557-2561, 1980.
Tormey et al., Ann. Int. Med. 98: 139-144, 1983.
Toth & Zakar J. Steroid Biochem 17:653-660, 1982.
Tseng and Gurpide, J. Clin. Endocrinol. Metab. 41, 402-404, 1975.
Van Veelen et al., Cancer 58, 7-13, 1986.
Van Veelen et al., Cancer Treatment Rep. 69: 977-983, 1985.
Velentzas & Karras, Nouv. Presse Medicale 10: 2520, 1981.
Vignon et al., J. Clin Endocrinol Metab. 56: 1124-1130, 1983.
Webster & Hogkins, Proc. Soc. Exp. Biol. Med. 72-75, 1940.

Vincens et al., Les Androgenes In: Pharmacologie Clinique, Base de Therapeutique, 2ieme Ed., Expansion Scientific (Paris), pp. 2139-2158, 1988.
Wilson & Griffin, Metabolism 28:1278, 1980.
Witcliff, Cancer 53: 630-643, 1984.
Witcliff, In: Bush, H. (Ed.), Methods in Cancer Res., No. 11, Acad. Press, New York, 1975 pp. 293-304.
Poulin, et al., Breast Cancer Research and Treatment 12:213-325 (1988).
Poulin, et al., Breast Cancer Research and Treatment 13:161-172 (1989).
Young, et al., Am. J. Obstet. Gynecol. 137(3):284-292 (1980).
Janne, et al., Phmaracological Reviews 36(2):35S-42S (1984).
Poulin, et al., Endocrinology 125(1):392-399 (1989).

ART-UNIT: 127
PRIMARY-EXAMINER: Nutter; Nathan M.
ATTY-AGENT-FIRM: Ostrolenk, Faber, Gerb & Soffen, LLP

ABSTRACT:

Methods of treatment and prevention of estrogen-related diseases, and of fertility control, include low dose (e.g. less than 50 nanomolar serum concentration) administration of certain anabolic steroids, progestins and other substantially non-masculinizing androgenic compounds. Sustained release formulations substantially free of organic solvent, and sustained release formulations for maintaining low serum levels of androgen are disclosed.

22 Claims, 16 Drawing figures

☐ 6. Document ID: US 5741329 A

L14: Entry 6 of 14 File: USPT Apr 21, 1998

US-PAT-NO: 5741329
DOCUMENT-IDENTIFIER: US 5741329 A

TITLE: Method of controlling the pH in the vicinity of biodegradable implants

DATE-ISSUED: April 21, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Agrawal; Chandra Mauli	San Antonio	TX	N/A	N/A
Athanasiou; Kyriacos A.	San Antonio	TX	N/A	N/A

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Board of Regents, The University of Texas System	Austin	TX	N/A	N/A	02

APPL-NO: 8/ 361332
DATE FILED: December 21, 1994

INT-CL: [6] A61F 2/02
US-CL-ISSUED: 623/11; 623/16, 606/76, 523/113, 523/115, 424/423
US-CL-CURRENT: 424/423; 523/113, 523/115, 606/76
FIELD-OF-SEARCH: 623/11, 623/16, 606/76, 606/77, 523/113, 523/115, 424/423, 424/426

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
3911098	October 1975	Capozza	424/428
4479911	October 1984	Fong	264/4
4645503	February 1987	Lin et al.	623/16
4694039	September 1987	Mottus et al.	524/718
4722948	February 1988	Sonderson	523/115
4990161	February 1991	Kampner	623/16
5286763	February 1994	Gerhart et al.	604/40
5433751	July 1995	Christel et al.	606/77

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
0 50 939 A	September 1991	EPX
0 564 369 A1	June 1993	EPX

OTHER PUBLICATIONS

Acuna, V. et al., "Composites of Lactic Acid Polymer and Calcium Phosphate or Calcium Carbonate as Degradable Bone Fillers," Advances in Biomaterials, 10. Biomaterial Tissue Interfaces, 1992, pp. 391-398.
DeGroot, K., "Medical Applications of Calciumphosphate Bioceramics," J. Ceramic Society of Japan, International Edition, vol. 99, No. 10, Oct. 1991, JP, pp. 917-926.
Saalfeld, U. et al., "Solubility Behaviour of Synthetic Hydroxyapatites in Aqueous Solution: Influence of Aorphous Constituents on pH Value," Biomaterials (Sep. 1994) 15(11):905-908.
Daniels, A. U. et al., "Toxicity of Absorbable Polymers Proposed for Fracture Fixation Devices," 38th Ann. Meeting, Orthopaedic Res. Soc., Feb. 17-20, 1992, Washington, D.C., p. 88.
Allemann et al., "In vitro Extended-release Properties of Drug-loaded Poly (DL-lactic acid) Nanoparticles Produced by a Salting-out Procedure," Pharm. Res. (1993) 10:12.
Bostman et al., "Biodegradable Internal Fixation for Malleolar Fractures," J. Bone Surgery (1987) 69-B:615-619.
Freed et al., "Joint Resurfacing Using Allograft Chondrocytes and Synthetic Biodegradable Polymer Scaffolds," J. Biomed. Mat. Res. (1994) 28:891-899.
Freed et al., "Biodegradable Polymer Scaffolds for Tissue Engineering," Biotechnology (Jul. 1994) 12.
Gilding and Reed, "Biodegradable polymers for use in surgery-polyglycolic/poly (lactic acid) homo-and copolymers," Polymer (1979) 20:1459-1464.
Mariette et al., "Release of the GRF29NH.sub.2 Analog of Human GRF44NH2 from a PLA/GA Matrix," J. Control Release (1993) 24(1-3):237-246.
Suganuma, J. and Alexander, H., "Biological Response of Intramedullary Bone to Poly-L-Lactic Acid," J. Appl. Biomaterials (1993) 4:13-27.
Taylor et al., "Six Bioadsorbable Polymers: In Vitro Acute Toxicity of Accumulated Degradation Products," J. Appl. Bio. Materials (1994) 5:151-157.
Tencer et al., "Bone Ingrowth into Polymer Coated Porous Synthetic Coralline Hydroxyapatite," IEEE/Engineering in Med. and Biol. Soc., Annual Conference (1986) pp. 1668-1671.
Vasenius et al., "Do Intramedullary Rods of Self-Reinforced Poly-L-lactide or Poly-DL/L-lactide Cause Lactic Acid Acidosis in Rabbits?", Clin. Mater. (1992) 10(4);213-218.
Younes et al., "Biodegradable PELA Block Copolymers: In Vitro Degradation and Tissue Reaction," Biomater. Artif. Cells Artif. Organs (1988) 1604):705-719.

ART-UNIT: 338
PRIMARY-EXAMINER: Prebilic; Paul
ATTY-AGENT-FIRM: Greenlee, Winner and Sullivan, P.C.

ABSTRACT:

The invention discloses pH-controlling devices that comprise a biodegradable

polymer and a pH-controlling substance, particularly an alkaline, acidic or buffering agent. By way of example, such alkaline agents include calcium carbonate and sodium bicarbonate. Methods of preparing such devices are also described. Methods for enhancing biocompatibility of an implantable device are also provided, as neutralizing alkaline materials are released at a rate that offsets changes in pH typically observed as polymers degrade to various acidic or alkaline by-products. By way of example, biodegradable polymers include PLA, PGA, polycaprolactone, copolymers thereof, or mixtures thereof. A new technique is also disclosed to increase the surface porosity of porous implants which have a tendency to form relatively impermeable coverings. This technique entails the use of mechanical means to remove at least part of said covering, thus increasing the implant's surface porosity and permeability.

19 Claims, 6 Drawing figures

☐ 7. Document ID: US 5728752 A

L14: Entry 7 of 14 File: USPT Mar 17, 1998

US-PAT-NO: 5728752
DOCUMENT-IDENTIFIER: US 5728752 A

TITLE: Injectable microdipersions for soft tissue repair and augmentation

DATE-ISSUED: March 17, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Scopelianos; Angelo G.	Whitehouse Station	NJ	N/A	N/A
Arnold; Steven C.	Sparta	NJ	N/A	N/A
Bezwada; Rao S.	Whitehouse Station	NJ	N/A	N/A
Roller; Mark B.	North Brunswick	NJ	N/A	N/A
Huxel; Shawn T.	Lakehurst	NJ	N/A	N/A

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Ethicon, Inc.	Somerville	NJ	N/A	N/A	02

APPL-NO: 8/ 618439
DATE FILED: March 15, 1996

PARENT-CASE:
This is a division of application Ser. No. 08/324,543, filed Oct. 18, 1994, now U.S. No. 5,399,852, which is hereby incorporated by reference.

INT-CL: [6] C08L 3/00, A61F 2/00, A61M 5/00
US-CL-ISSUED: 523/113; 424/423, 424/426, 525/411, 525/415, 623/12, 623/14, 623/15, 528/354, 528/361
US-CL-CURRENT: 523/113; 424/423, 424/426, 525/411, 525/415, 528/354, 528/361, 623/23.76
FIELD-OF-SEARCH: 823/113, 424/423, 424/426, 525/411, 525/415, 528/354, 623/12, 623/14, 623/15

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4595713	June 1986	St. John	523/105
5442033	August 1995	Bezwada	528/354

ART-UNIT: 151
PRIMARY-EXAMINER: Merriam; Andrew E. C.
ATTY-AGENT-FIRM: Woodrow; Hal B.

ABSTRACT:

The present invention provides injectable, bioabsorbable microdispersions suitable for use as a soft tissue repair or augmentation material in animals comprising a fluid carrier that is a liquid polymer selected from the group consisting of liquid polymers of a plurality of at least two different first lactone repeating units and other liquid polymers; and a particulate material. Additionally, the present invention also discloses methods of using these microdispersions for tissue augmentation and repair as well as kits which include prefilled containers to facilitate the use of these materials.

21 Claims, 1 Drawing figures

☐ 8. Document ID: US 5635216 A

L14: Entry 8 of 14 File: USPT Jun 3, 1997

US-PAT-NO: 5635216
DOCUMENT-IDENTIFIER: US 5635216 A

TITLE: Microparticle compositions containing peptides, and methods for the preparation thereof

DATE-ISSUED: June 3, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Thompson; William W.	Indianapolis	IN	N/A	N/A

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Eli Lilly and Company	Indianapolis	IN	N/A	N/A	02

APPL-NO: 8/ 168941
DATE FILED: December 16, 1993

INT-CL: [6] A61K 9/14
US-CL-ISSUED: 424/501; 514/2, 514/12
US-CL-CURRENT: 424/501; 514/12, 514/2
FIELD-OF-SEARCH: 424/422, 424/486, 424/489, 424/490, 424/497, 424/501, 514/2, 514/12

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4148871	April 1979	Pitt et al.	N/A
4530840	July 1985	Tice et al.	N/A
4542025	September 1985	Tice et al.	N/A
4741872	May 1988	De Luca et al.	N/A
4767628	August 1988	Hutchinson	N/A
4962091	October 1990	Eppstein et al.	514/2
5192741	March 1993	Orsolini et al.	514/4
B14767628	July 1990	Hutchinson	N/A

OTHER PUBLICATIONS

P. Couvreur and F. Puisieux, "Nano- and microparticles for the delivery of polypeptides and proteins", Advanced Drug Delivery Reviews, 1993, vol. 10, pp. 141-162 May-Jun.
Reza Arshady, "Microspheres and Microcapsules, a Survey of Manufacturing Techniques: Part III: Solvent Evaporation", Polymer Engineering and Science, Mid-Aug., 1990, vol. 30, No. 15, pp. 915-924.
H.. Jeffrey, et al., "The preparation and characterisation of poly(lactide-co-glycolide) microparticles. I: Oil-in-water emulsion solvent evaporation", International Journal of Pharmaceutics, 1991, vol. 77, pp. 169-175 Oct.
Hua-Pin Huang and Isaac Ghebre-Sellassie, "Preparation of microspheres of water-soluble pharmaceuticals", J. Microencapsulation, 1989, vol. 6, No. 2, pp. 219-225 Apr.-Jun.
D. Bodmer, et al., "Factors influencing the release of peptides and proteins from biodegradable parenteral depot systems", Journal of Controlled Release, 1992, vol. 21, pp. 129-138 Jul.
B. Mariette, et al., "Release of the GRF29NH.sub.2 analog of human GRF44NH.sub.2 from a PLA/GA matrix", Journal of Controlled Release, 1993, vol. 24, pp. 237-246 Jun.
B. Floy, et al., "Design of Biodegradable Polymer Systems for Controlled Release of Bioactive Agents", Polymeric Delivery Systems, American Chemical Society, 1993, pp. 154-167 (month unavailable).
V.J. Csernus, et al., "Release of peptides from sustained delivery systems (microcapsules and microparticles) in vivo", Int. J. Peptide Protein Res., 1990, vol. 35, pp. 557-565 Jun.
R. Jalil and J.R. Nixon, "Microencapsulation using poly(DL-lactic acid)I: Effect of preparative variables on the microcapsules characteristics and release kinetics", J Microencapsulation, 1990, vol. 7, No. 2, pp. 229-244 Apr.-Jun.
J.L. Grangier, et al., "Nanoparticles as carriers for growth hormone releasing factor", Journal of Controlled Release, 1991, vol. 15, pp. 3-13 Feb.

ART-UNIT: 127
PRIMARY-EXAMINER: Mullis; Jeffrey C.
ATTY-AGENT-FIRM: Cantrell; Paul R. Page; Kathleen R. S.

ABSTRACT:

A composition of polyester microparticles containing bioactive polypeptide agents and methods for preparing the composition and administering bioactive agents. The composition comprises biocompatible, biodegradable microparticles having a polyester matrix and from about 5% to about 25% by weight of a biologically active, water-soluble polypeptide dispersed throughout the matrix, the polypeptide selected from the group consisting of growth hormone releasing factor, synthetic analogs of growth hormone releasing factor, pharmacologically active fragment thereof and somatogenin. The method for preparing the composition includes dissolving polyester in an organic solvent; suspending a biologically active agent in the polyester solution; emulsifying the suspension into an aqueous medium in which the agent is insoluble and evaporating the solvent from the emulsion to produce microparticles. The method for administering a bioactive agent to an organism involves suspending the microparticles in a suitable liquid and injecting the organism.

6 Claims, 4 Drawing figures

☐ 9. Document ID: US 5599852 A

L14: Entry 9 of 14 File: USPT Feb 4, 1997

US-PAT-NO: 5599852
DOCUMENT-IDENTIFIER: US 5599852 A

TITLE: Injectable microdispersions for soft tissue repair and augmentation

DATE-ISSUED: February 4, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Scopelianos; Angelo G.	Whitehouse Station	NJ	N/A	N/A
Arnold; Steven C.	Sparta	NJ	N/A	N/A
Bezwada; Rao S.	Whitehouse Station	NJ	N/A	N/A
Roller; Mark B.	North Brunswick	NJ	N/A	N/A
Huxel; Shawn T.	Lakehurst	NJ	N/A	N/A

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Ethicon, Inc.	Somerville	NJ	N/A	N/A	02

APPL-NO: 8/ 324543
DATE FILED: October 18, 1994

INT-CL: [6] C08K 5/15, C08L 3/00, A61F 2/00, A61M 5/00
US-CL-ISSUED: 523/105; 523/113, 523/114, 523/115, 525/411, 525/415, 424/423, 424/426, 424/484, 604/232, 604/218, 604/891.1, 604/403, 623/10, 623/11, 623/12, 623/13, 623/14, 623/15, 623/16
US-CL-CURRENT: 523/105; 424/423, 424/426, 424/484, 523/113, 523/114, 523/115, 525/411, 525/415, 604/218, 604/232, 604/403, 604/891.1, 623/10, 623/23.72
FIELD-OF-SEARCH: 523/105, 523/113, 523/114, 523/115, 525/415, 525/411, 424/423, 424/426, 424/484, 604/232, 604/218, 604/891.1, 604/403, 623/10, 623/11, 623/12, 623/13, 623/14, 623/15, 623/16

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4595713	June 1986	St. John	523/105
4664655	May 1987	Orentreich et al.	604/232
4758234	July 1988	Orentreich et al.	604/232
4803075	February 1989	Wallace et al.	424/423
4938763	July 1990	Dunn et al.	604/891.1
5204382	April 1993	Wallace et al.	523/115
5278201	January 1994	Dunn et al.	523/113
5278202	January 1994	Dunn et al.	523/113
5321113	June 1994	Cooper et al.	528/176
5342557	August 1994	Kennedy	264/8
5366756	November 1994	Chesterfield et al.	427/2.26
5468253	November 1995	Bezwada et al.	606/230

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
0608139A1	January 1994	EPX
0635531A2	July 1994	EPX
42 35 312.2	April 1993	DEX
WO93/15721	August 1993	WOX
WO94/02184	March 1994	WOX

OTHER PUBLICATIONS

J. of Urology, vol. 151, May 1994, No. 5 Injectable Teflon Paste for Female Stress Incontinence: Long term Follow-up and Results; J. F. Buckley, et al. J. F. Buckley, et al.
Neurourology and Urodynamics 12:131-137 (1993) Complications of Teflon Injection for Stress Urinary Incontinence Pentti, et al.; 1993 Wiley-Liss, inc.
J. of Urology vol. 142, 821-822, Pulmonary Migration Following Periurethral Polytetrafluoroethylene Injection for Urinary Incontinence H. Claes, et al.
Plastic & Reconstructive Surgery - Apr. 1991, vol. 87, 693-702, Bioplastique: A New Textured Copolymer Microparticle Promises Permanence in Soft-Tissue Augmentation Robert A. Ersek, M.D., et al.
J. of Urology vol. 148, 1797-1800, Dec. '92, Early Experimence with Intrauuethral Collagen Injections for urinary Incontinence Sender Herschorn, et al.
JAMA Jun. 22/29, 1984-vol. 251, No. 24 3277-3281, Clinical Investigation: Migration and Granulomatous Reactino After Periurethral Injection of Polytef (Teflone) Anthont A. Malizia, Jr. M.D., et al.
J. of Endourology vol. 6, No. 3, '92, 275-277, Endourologic Control of Incontinence with GAX Collagne: The LSU Experience Rodney A. Appell, M.D. et al.
J. American Acad. Dermatol. Dermatologic Surgery; No. 5, Nov. 1989, 992-998, Dermal Implants: Safety of Products Injected for Soft Tissue Augmentation David P. Clark, et al.
Dermatologic Clinics, vol. 11 - No. 2, Apr. '93, 361-367, Dermal Filler Materials Melvin L. Elson, M.D.
J. Dermatol. Surg. Oncol. 14:7 Jul. 1988, 66-75, Comparison of Injectable Silicone Versus Collagen for Soft Tissue Augmentation Kevin A. Shumrick, M.D., et al.
Clinics in Plastic Surgery vol. 18, No. 4, Oct. '91, 829-855, Alloplastic Implants for Men Brian H. Novack, M.D.
Donaldson, Lufkin & Jenrett Research Bulletin, Oct. 6, 1993, 1565-93 Kent Blair.
Aesthetic Plastic Surgery, 16:59-65, 1992, Bioplastique: A New Biphasic Polymer for Minimally Invasive Injection Implantation Robert A. Ersek, M.D., et al.

ART-UNIT: 151
PRIMARY-EXAMINER: Michl; Paul R.
ASSISTANT-EXAMINER: DeWitt; LaVonda R.
ATTY-AGENT-FIRM: Woodrow; Hal Brent

ABSTRACT:

The present invention provides injectable, bioabsorbable microdispersions suitable for use as a soft tissue repair or augmentation material in animals comprising a fluid carrier that is a liquid polymer selected from the group consisting of liquid polymers and a particulate material. Additionally, the present invention also discloses methods of using these microdispersions for tissue augmentation and repair as well as kits which include prefilled containers to facilitate the use of these materials.

25 Claims, 1 Drawing figures

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc | Image

☐ 10. Document ID: US 5541172 A

L14: Entry 10 of 14 File: USPT Jul 30, 1996

US-PAT-NO: 5541172
DOCUMENT-IDENTIFIER: US 5541172 A

TITLE: Controlled release systems and low dose androgens

DATE-ISSUED: July 30, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Labrie; Fernand	Quebec	N/A	N/A	CAX
Lepage; Martin	Quebec	N/A	N/A	CAX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Endorecherche, Inc.	N/A	N/A	N/A	CAX	03

APPL-NO: 8/ 474347
DATE FILED: June 7, 1995

PARENT-CASE:
RELATED APPLICATION This application is a divisional of U.S. patent application Ser. No. 08/398,096, filed Mar. 3, 1995, which is in turn a divisional of U.S. patent application Ser. No. 07/900,817, filed Jun. 24, 1992, which is in turn a continuation-in-part of U.S. patent application Ser. No. 07/724,532, filed Jun. 28, 1991.

INT-CL: [6] A61K 31/56
US-CL-ISSUED: 514/169; 514/170, 514/177, 514/179, 514/964, 514/965, 523/113, 424/422
US-CL-CURRENT: 514/169; 424/422, 514/170, 514/177, 514/179, 514/964, 514/965, 523/113
FIELD-OF-SEARCH: 514/169, 514/170, 514/177, 514/179, 514/964, 514/965, 523/113, 424/422

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
3773919	November 1973	Boswell	N/A
4107071	August 1978	Bayless	N/A
4166800	September 1979	Fong	N/A
4659695	April 1987	Labrie	N/A
4818542	April 1989	Deluca	N/A
4826831	May 1989	Plunkett	N/A
4987268	January 1991	Rauleder	N/A
5043331	August 1992	Hirvonen	N/A

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
0058481	August 1982	EPX
2010115	March 1970	DEX
2051580	October 1970	DEX
3503679	February 1985	DEX
4036425	May 1991	DEX
141652	December 1967	NZX
145613	December 1969	NZX
180683	October 1977	NZX
180684	March 1978	NZX
222761	October 1989	NZX
2239798	July 1991	GBX
8601105	February 1986	WOX
8807816	October 1988	WOX
8903678	May 1989	WOX
9010462	September 1990	WOX

OTHER PUBLICATIONS

Chem. Abstr. 97(4):28542e (Jul. 26, 1982)
Poulin, et al., Breast Cancer Research and Treatment 12:213-325 (1988).
Poulin, et al., Breast Cancer Research and Treatment 13:161-172 (1989).
Young, et al., Am. J. Obstet. Gynecol. 137(3):284-292 (1980).
Janne, et al., Phmaracological Reviews 36(2):35S-42S (1984).
Poulin, et al., Endocrinology 125(1):392-399 (1989).
The Merck Index No. 5677, p. 909; No. 5687, p. 910 (1989).
The Merck Index No. 7486, p. 1188 Pizotyline (1989).
Wink and Felts, Calcif. Tissue Res. 32:77-82 (1986).
Wise, et al., Biology and Medicine pp. 237-270 (1979).
Young et al., Am. J. Obstet. Gynecol. 137:284-292 (1980).
Adair, et al., Ann. Surg. 123:1023-1035 (1946).
Adair, et al., JAMA 140:1193-2000 (1949).
Adair, Surg. Gynecol. Obstet. 84:719-722 (1947).
Allegra et al., Cancer Res. 39:1447-1454 (1979).
Aloia et al., Arch. Int. Med. 143:1700-1704 (1983).
Anderson, et al., Contraception 13:375-394 (1976).
Baker (1987) Controlled release of biologically active agents.
Beck, et al., Adv. in Human Fert. & Reprod. Endo., pp. 175-199 (1983).
Blossey et al., Cancer 54:1208-1215 (1984).
Blumenschein, Semin. Oncol. 10:7-10 (1983).
Centola, Cancer Res. 45:6264-6267 (1985).
Colvard, et al., Proc. Natl. Acad. Sci. 86:854-857 (1989).
Deutsch et al., Int. J. Gynecol. Obstet. 25:217-222 (1987).
Ehrlich et al., Am. J. Obstet Gynecol. 158:796-807 (1988).
Eriksen et al., Science 241:84-86 (1988).
Finkelstein et al., Ann. Int. Med. 106:354-361 (1987).
Gresser, et al., Contraception 17:253-267 (1978).
Hall, Fertility Regulation, Today and Tomorrow pp. 119-141 (1987).
Haller and Glick, Semin. Oncol. 13:2-8 (1986).
Hamblen, South Med. J. 50:743-750 (1987).
Hollo and Feher, Acta. Med. Hung. 20:233-247 (1964).
Hollo et al., Acta Med. Hung. 27:155-160 (1970).
Hollo et al., Lancet 1:1357 (1976).
Hortobagi et al., Breast Cancer Res. Treatm. 5:321-326 (1985).
Horwitz, J. Steroid Biochem. 27:447-457 (1987).
Horwitz et al., Cancer Res. 38:2434-2439 (1978).
Janne and Bardin, Pharmacol. Rev. 36:35S-42S (1984).
Kitchell, et al., Methods in Enzymology 112:436-448 (1985).
Komm, et al., Science 241:81-84 (1988).
Kramer, Biometrics 12:307-310 (1956).
Labrie, et al., J. Steroid Biochem. 28(4):379-384 (1987).
Labrie et al., Fertil Steril. 28:1104-1112 (1977).
Labrie, et al., Mol. Cell Endocrinol. 68:169-179 (1990).
Larrea, et al., J. Steroid Biochem. 27:657-663 (1987).

Lea et al., Cancer Res. 49:7162-7167 (1989).
Lim (1984) Biomedical Application of Microencapsulation.
Lippman, Semin. Oncol. 10(Suppl. 4):11-19 (1983).
Lippman, et al., Cancer Res. 36:4610-4618 (1976).
MacLaughlin, et al., J. Steroid Biochem. 10:371-377.
Mattsson, Breast Cancer Res. Treatm. 3:231-235 (1983).
Muechler and Kohler, Gynecol. Invest. 8:104 (1988).
Nathanson, et al., Rec. Prog. Horm. Res. 1:261-291 (1947).
Need, Clin. Orthop. 225:273-278 (1987).
Nordin, et al., J. Clin. Endocr. Metab. 60:651-657 (1985).
Ojasso et al., J. Steroid Biochem. 27:255-269 (1987).
Perez-Palacios et al., J. Steroid Biochem. 15:125-130 (1981).
Perez-Palacois et al., J. Steroid Biochem. 19:1729-1735 (1983).
Podratz et al., Obstet. Gynecol. 66: 106-110, 1985.
Poulin, et al., Br. Cancer Res. Treatm. 17:197-210 (1990).
Poulin et al., Cancer Res. 46:4933-4937 (1986).
Preston, Obstet, Gynecol. 2: 152-157, 1965.
Pridjian et al., J. Steroid Biochem. 26: 313-319.
Rodbard & Lewald In: 2nd Karolinska Symposium, Geneva, 1970, pp. 79-103.
Said, et al., Contraception 37:1-20 (1988).
Silberberg, et al., Biochem. & Physiol. of Bone 2(2):401-484 (1971).
Sledge & McGuire, Cancer Res. 38: 61-75, 1984.
Tatman et al., Eur. J. Cancer Clin. Oncol. 25: 1619-1621, 1989.
Urist & Vincent, J. Clin. Orthop. 18:199-208 (1961).
Verhas et al., Calif. Tissue Res. 39:74-77 (1986).
Vilchis, et al., J. Steroid Biochem. 24:525-531 (1986).
Van Veelen et al., Cancer Chemother. Pharmacol. 15:167-170 (1985).

ART-UNIT: 127
PRIMARY-EXAMINER: Nutter; Nathan M.
ATTY-AGENT-FIRM: Ostrolenk, Faber, Gerb & Soffen

ABSTRACT:

Methods of treatment and prevention of estrogen-related diseases, and of fertility control, include low dose (e.g. less than 50 nanomolar serum concentration) administration of certain anabolic steroids, progestins and other substantially non-masculinizing androgenic compounds. Sustained release formulations substantially free of organic solvent, and sustained release formulations for maintaining low serum levels of androgen are disclosed.

1 Claims, 17 Drawing figures

☐ 11. Document ID: US 5434146 A

L14: Entry 11 of 14 File: USPT Jul 18, 1995

US-PAT-NO: 5434146
DOCUMENT-IDENTIFIER: US 5434146 A

TITLE: Controlled release systems and low dose androgens

DATE-ISSUED: July 18, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Labrie; Fernand	Quebec	N/A	N/A	CAX
Lepage; Martin	Quebec	N/A	N/A	CAX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Endorecherche, Inc.	Quebec	N/A	N/A	CAX	03

DISCLAIMER DATE: 20111108

APPL-NO: 7/ 900817
DATE FILED: June 24, 1992

PARENT-CASE:
RELATED APPLICATION The application is a continuation-in-part of copending U.S. patent application Ser. No. 07/724,532 filed Jun. 28, 1991, and now abandoned.

INT-CL: [6] A61K 31/56
US-CL-ISSUED: 514/169; 514/170, 514/177, 514/179, 523/113, 424/422
US-CL-CURRENT: 514/169; 424/422, 514/170, 514/177, 514/179, 523/113
FIELD-OF-SEARCH: 514/169, 514/170, 514/177, 514/179, 523/113, 424/422

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
3773919	November 1973	Boswell	N/A
4107071	August 1978	Bayless	252/316
4166800	September 1979	Fong	252/316
4659695	April 1987	Labrie	514/15
4818542	April 1989	DeLuca	424/491
4826831	May 1989	Plunkett et al.	514/170
4987268	January 1991	Rauleder	568/616
5043331	August 1992	Hirvonen et al.	514/170

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
0058481	August 1982	EPX
2010115	March 1970	DEX
2051580	October 1970	DEX
3503679	February 1985	DEX
4036425	May 1991	DEX
141652	December 1967	NZX
145613	December 1969	NZX
180683	October 1977	NZX
180684	March 1978	NZX
222761	October 1989	NZX
2239798	July 1991	GBX
86/0110	February 1986	WOX
WO8807816	October 1988	WOX
8903678	May 1989	WOX
90/10462	September 1990	WOX
9010462	September 1990	WOX

OTHER PUBLICATIONS

The Merck Index, 1989, Citation No. 7486, Pizotyline, p. 1194.
Chemical Abstracts, vol. 97, No. 4, 26 Jul. 1982, Columbus Ohio, Abstract No. 28542e.
The Merck Index, 1989, Merck & Co. Inc., Rahway, N.J., p. 909, No. 5677; p. 910 No. 5687.

Adair, F. E. (1947) The use of the male sex hormone in women with breast cancer, Surg. Gynecol. Obstet. 84:719-722.
Adair, F. E., Herrmann, J. B. (1946) The use of testosterone propionate in the treatment of advanced carcinoma of the breast. Ann. Surg 123:1023-1035.
Adair, F. E., Mellors, R. C., Farrow, J. H., Woodard, H. Q., Escher, C. S., Urban, J. A. (1949) The use of estrogens and androgens in advanced mammary cancer. J. Am. Med. Ass. 15:1193-1200.
Allegra, J. C., Lippman, M. E., Thompson, E. B., Simon, R., Barlock, A., Green, L., Huff, K. K., Do, H. M. T., Aitken, S. C. (1979) Distribution, frequency, and quantitative analysis of estrogen, progesterone, androgen, and glucocorticoid receptors in human breast cancer. Cancer Res. 39:1447-1454.
Aloia, J. F., Vaswanim, A. N., Yed, J. K., Ross, P., Ellis, K., Cohn, S. H. (1983) Determinants of bone mass in postmenopausal women. Arch. Int. Med. 143:1700-1704.
Anderson, L. C., Wise, D. L., Howes, J. F. (1976) An injectable sustained release fertility control system. Contraception 13:375-384.
Baker, R. (1987) Controlled release of biologically active agents. John Wiley & Sons, Inc.
Beck, L. R., Tice, T. R. (1983) Poly(lactic acid) and poly(lactic acid-co-glycolic acid) contraceptive delivery systems. In: Advances in Human Fertility and Reproductive Endocrinology. Edited by D. R. Mishell Jr., vol. 2, Raven Press, New York, pp. 175-199.
Blossey, H. C., Wander, H. E., Kiebberling, J., Nagel, G. A. (1984) Pharmacokinetic and pharmacodynamic basis for the treatment of metastatic breast cancer with high-dose medroxyprogesterone acetate. Cancer 54:1207-1215.
Blumenschein, G. R. (1983) The role of progestins in the treatment of breast cancer. Semin. Oncol. 10:7-10.
Centola, G. M. (1985) Inhibition of endometrial carcinoma cell cultures by a synthetic androgen. Cancer Res. 45:6264-6267.
Colvard, D. S., Eriksen, E. F., Keeting, P. E., Wilson, E. M., Lubahn D. B., French, F. S., Riggs, B. L., Spelsberg, T. C. (1989) Identification of androgen receptors in normal human osteoblast-like cells. Proc. Natl. Acad. Sci. 86:854-857.
Deutsch, S., Benjamin, F., Seltzer, V., Tafreshi, M., Kocheril, G., Frank, A. (1987) The correlation of serum estrogens and androgens with bone density in the late postmenopause. Int. J. Gynecol. Obstet. 25:217-222.
Ehrlich, C. E., Young, P. C. M., Stehman, F. B., Sutton, G. P., Alfort, W. M. (1988) Steroid receptors and clinical outcome in patients with adenocarcinoma of the endometrium. Am. J. Obstet. Gynecol. 158:797-807.
Eriksen, E. F., Colvard, D. S., Berg, N. J., Graham, M. L., Mann, K. G., Spelsbert, C., Riggs, B. L. (1988) Evidence of estrogen receptors in normal human osterblast-like cells. Science 241:84-86.
Finkelstein, J. S., Linbanski, A., Neer, R. M., Greenspan, S. L., Rosenthal, D. I., Crowley, W. F. Jr (1987) Osteoporosis in men with idiopathic hypogonadotropic hypogonadism. Ann. Intern. Med. 106:354-361.
Gresser, J. D., Wise, D. L., Beck, L. R., Howes, J. F. (1978) Larger animal testing of an injectable sustained release fertility control system. Contraception 17:253-267.
Hall PE (1987) Long acting injectable preparations. Edited by E. Diczfalusy, M. Bydeman M. In:Fertility Regulation, Today and Tomorrow. New York, Raven Press, pp. 119-141.
Haller, F. G., Glick, J. H. (1986) Progestational agents in advanced breast cancer: an overview. Semin. Oncol. 13:2-8.
Hamblen EC (1957) Androgenic therapy for woman. South Med J 50: 743-750.
Hollo, I., Feher, T., Szucs, J. (1970) Serum dehydroepiandrosterone, androsterone and cortisol level in primary postmenopausal and other type osteoporosis. Acta Med. Hung. 27:155-160.
Hollo, I. Feher, T. (1964) Studies on postmenopausal osteoporosis. I. Urinary excretion of 17-ketosteroid fractions in postmenopausal osteoporosis. Acta Med. Hung. 20:233-247.
Hollo, I., Szalay, F., Szucs, J., Boross, M. (1976) Osteoporosis and androgens. Lancet 1357.
Hortobagyi, G. N., Buzdar, A. M., Frye, D., Yap, H. Y., Hug, V., Pinnamaneni, K., Fraschini, G., Halvorson, H. C., Blumenschein, G. R. (1985) Oral medroxyprogesterone acetate in the treatent of metastatic breast cancer. Breast Cancer Res. Treatm. 5:321-326.
Horwitz, K. B. (1987) The structure and function of progesterone receptors in breast cancer. J. Steroid Biochem. 27:447-457.
Horwitz, K. B., Zava, D. T., Thilagar, A. K., Jensen, E. M., McGuire, W. L. (1978) Sterod receptor analyses of nine human breast cancer cell lines. Cancer Res.

38:2434-2439.
Janne, O. A., Bardin, C. W. (1984) Steroid receptors and hormone action: physiological and synthetic androgens and progestins can mediate inappropriate biological effects. Pharmacol. Rev. 36:35S-42S.
Kitchell, J. D. and Wise, D. L. (1985). [32]poly(lactic/glycolic acid) biodegradable drug-polymer matrix system. In Methods in Enzumology, Academic Press, vol. 112, pp. 436-448.
Komm, B. S., Terpening, C. M., Benz, D. J., Graeme, K. A., Gallegos, A., Korc, M., Greene, G. L., O'Malley, B. W., Haussler, M. R. (1988) Estrogen binding, receptor mRNA, and biologic response in osteoblast-like ostersarcoma cells. Science 241:81-84.
Kramer, C. Y. (1956) Extension of multiple range tests to group means with unequal numbers of replications. Biometrics 12:307-310.
Labrie, C., Cusan, L., Plante, M., Lapointe, S., Labrie, F. (1987) Analysis of the androgenic activity of synthetic "progestins" currently used for the treatment of prostate cancer. J. Steroid Biochem. 28:379-384.
Labrie, C., Simard, J., Zhao, H. F., Pelletier, G., Labrie, F. (1990) Synthetic progestins stimulate prostatic binding protein messenger RNAs in the rat ventral prostate. Mol. Cell. Endocrinol. 68:169-179.
Labrie, F., Ferland, L., Lagace, L., Drouin, J., Asselin, J., Azadian-Boulanger, G., Raynaud, J. P. (1977) High inhibitory activity of R5020, a pure progestin, at the hypothalamic-adenohypophyseal level on gonadotropin secretion. Fertil. Steril. 28: 1104-1112.
Larrea, F., Vilchis, F., Chavez B., Perez, A. E., Garza-Flores, J., Perez-Palacios, G. (1987) The metabolism of 19-nor contraceptive progestins modulates their biological activity at the neuroendocrine level. J. Steoid Biochem. 27:657-663.
Lea, O. A., Kvinnsland, S., Thorsen, T. (1989) Improved measurement of androgen receptors in human breast cancer. Cancer Res. 49:7162-7167.
Lim F. (1984) Biomedical Application of microencapsulation. Edited by F. Lim. CRC Press, BocaRaton.
Lippman, M. E. (1983) Antiestrogen therapy of breast cancer. Semin. Oncol. 10:11-19.
Lippman, M., Bolan, G., Huff, K. (1976) The effects of androgens and antiandrogens on hormone-responsive human breast cancer in long-term tissue cultur. Cancer Res. 36:4610-4618.
MacLaughlin, D. T., Richardson, G. S. (1979) Specificity of medroxyprogesterone acetate binding in human endometrium: interaction with testosterone and progesterone binding sites. J. Steroid Biochem. 10:371-377.
Mattson, W. (1983) Current status of high dose progestin treatment in advanced breast cancer. Breast Cancer Res. Treatm. 3:231-235.
Muechler, E. K., Kohler, D. (1988) Dihydrotestosterone-binding by human endometrium. Society for Gynecol. Invest. 8:104 (abst.).
Nathanson, I. T. (1947) Endocrine aspects of human cancer. Rec. Prog. Horm. Res. 1:261-291.
Need, A. G., Horowitz, M., Moris, H. A., Walker, C. J., Nordin, B. E. C. (1987) Effects of nadrolone therapy on forearm bone mineral contant in osteoporosis. Clin. Orthop. 225:273.
Nordin, B. E. C., Robertson, A., Seamark, R. F., Bridges, A., Philcox, J. C., Need, A. G., Horowitz, M., Morris, H. A., Deam, S. (1985) The relation between calcium absorption, serum dehydroepiandrosteone, and vertebral mineral density in postmenopausal women. J. Clin. Endocr. Metab. 60:651.
Ojasso, T., Delettre, J., Mornon, J. P., Turpin-VanDycke, C., Raynaud, J. P. (1987) Towards the mapping of the progesterone and androgen receptors. J. Steroid Biochem. 27:255-269.
Perez-Palacios, G., Chavez, B., Escobar, N., Vilchis, F., Lerrea, F., Lince, M., Perez, A. E. (1981) Mechanism of action of contraceptive synthetic progestins. J. Steroid Biochem. 15:125-130.
Perez-Palacios, G., Chavez, B., Vilchis, F., Escobar, N., Larrea, F., Perez, A. E. (1983) Interaction of medroxyprogesterone acetate with cytosol androgen receptors in the rat hypothalamus and pituitary. J. Steroid Biochem 19:1729-1735.
Podratz, K. C., O'Brien, P. C., Malkasian, G. D. Jr, Decker, D. G., Jefferies, J. A., Edmonston, J. H. (1985) Effects of progestational agents in treatment of endometrial carcinoma. Obstet. Gynecol. 66:106-110.
Paulin R, Baker D, Poirier D, Labrie F (1990) Multiple action of synthetic progestins on the growth of ZR-75-1 human breast cancer cells:An in vivo model for the simultaneous assay of androgen, progestin, estrogen, and glucocotricoid agonistic and antagonistic activities of steroids. Br. Cancer Res. Treatm. 17:197-210.

Paulin, R., Baker, D., Labrie, F. (1988) Androgens inhibit basal and estrogen-induced cell proliferation in the ZR-75-1 human breast cancer cell line. Breast Cancer Res. Treatm. 12:213-225.
Paulin, R., Baker, D., Poirier D., Labrie, F. (1989) Androgen and glucocorticoid receptor-mediated inhibition of cell proliferation by medroxyprogesterone acetate in ZR-75-1 human breast cancer cells. Breast Cancer Res. Treatm. 13:161-172.
Poulin, R., Labrie, F. (1986) Stimulation of cell proliferation and estrogenic response by adrenal C19-.increment.5-steroids in the ZR-75-1 human breast cancer cell line. Cancer Res. 46:4933-4937.
Preston, S. N. (1965) Pelvic endometriosis. Treatment with methyl testosterone. Obstet. Gynecol. 2:152-157.
Pridjian, G., Schmit, V., Schreiber, J. (1987) Medroxyprogestrone acetate: receptor binding and correlated effects on steroidogenesis in rat granulosa cells. J. Steroid Biochem. 26:313-319.
Roadbad, D. and Lewald, J. E. (1970) Computer analysis of radioligand assay and radioimmunoassay data. In: 2nd Symposium. Steroid Assay by Prolactin Binding. Karolinska Symposia on Research Methods in Reproductive Endocrinology, Geneva, pp. 79-103.
Said S, Sadek W, Knoleif A, Koetsawang S, Kifiwat O, et al. (1988) A multicentred phase III comparative study of two hormonal contraceptive preparations given once-a-month by intramuscular injection: I. Contraceptive efficacy and side effects. Contraception 37:12.
Silberberg, M. and Silberberg, R. (1971) Steroid hormones and bone. Edited by G. H. Bourne GH. In:The biochemistry and physiology of bone. New YOrk, Academic Press, vol. II, 2nd ed, pp. 401-484.
Sledge, G. W., McGuire, W. L. (1983) Steroid hormone receptors in human breast cancer. Adv. Cancer Res. 38:61-75.
Tatman, J. L., Freedman, R. S., Scott, W., Atkinson, E. N. (1989) Treatment of advanced endometrial adenocarcinoma with cyclic sequential ethinyl estradiol and medroxyprogesterone acetate. Eur. J. Cancer Clin. Oncol. 25:1619-1621.
Urist, M. R., Vincent, P. J. (1961) The excretion of various fractions of the 17-ketosteroids in the urine in women with postmenopausal or senile osteoporosis. J. Clin. Orthop. 18:199-208.
Verhas, M., Schoutens, A., L'Hermite-Baleriaux, M., Dourov, N., Verschaeren, A., Mone, M., Heilporn, A. (1986) The effect of orchidectomy on bone metabolism in aging rats. Calif. Tissue Res. 39: 74-77.
Vilchis, F., Chavez, B., Perez, A. E., Garcia, G. A., Angeles, A., Perez-Palacios G. (1986) Evidence that a non-aromatizable metabolite of norethisterone induces estrogen-dependent pituitary progestin receptors. J. Steroid Biochem. 24: 525-531.

Van Veelen, H., Willemse, P. H. B., Sleijfer, D. T., van der Ploeg, E., Sluiter, W. J., Doorenbos, H. (1985) Mechanism of adrenal suppression by high-dose medroxyprogesterone acetate in breast cancer patients. Cancer Chemother. Pharmacol. 15: 167-170.
Wink C S, Felts W J L (1980) Effects of castration on the bone structure of male rats: a model of osteoporosis. Calcif. Tissue Int. 32: 77-82.
Wise, D. L., Fellmann, T. D., Sanderson, J. E., Wentworth, R. L. (1979) Lactic/Glycolic Acid Polymers. In: Biology and Medicine. Edited by G. Gregotiadis. Academic Press, New York, pp. 237-170.
Young, P. C. M., Keen, F. K., Einhorn, L. H., Stanich, B. M., Ehrlich, C. E., Cleary, R. E. (1980) Binding of medroxyprogesterone acetate in human breast cancer. Am. J. Obstet Gynecol. 137: 284-292.

ART-UNIT: 153
PRIMARY-EXAMINER: Nutter; Nathan M.
ATTY-AGENT-FIRM: Ostrolenk, Faber, Gerb & Soffen

ABSTRACT:

Methods of treatment and prevention of estrogen-related diseases, and of fertility control, include low dose (e.g. less than 50 nanomolaR serum concentration) administration of certain anabolic steroids, progestins and other substantially non-masculinizing androgenic compounds. Sustained release formulations substantially free of organic solvent, and sustained release formulations for maintaining low serum levels of androgen are disclosed.

16 Claims, 15 Drawing figures

☐ 12. Document ID: US 5213812 A

L14: Entry 12 of 14 File: USPT May 25, 1993

US-PAT-NO: 5213812
DOCUMENT-IDENTIFIER: US 5213812 A

TITLE: Preparation process of sustained release compositions and the compositions thus obtained

DATE-ISSUED: May 25, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ruiz; Jean-Marc	Trelaze	N/A	N/A	FRX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE	
Societe de Conseils de Recherches et d'Applications Scientifiques	N/A	N/A	N/A	N/A	N/A	FRX 07

APPL-NO: 7/ 734493
DATE FILED: July 23, 1991

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
GB	9016885	August 1, 1990

INT-CL: [5] A61K 9/16
US-CL-ISSUED: 424/499; 424/501
US-CL-CURRENT: 424/499; 424/501
FIELD-OF-SEARCH: 424/461, 424/497, 424/499, 424/464, 424/501

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4010125	March 1977	Schally et al.	260/8
4675189	June 1987	Kent et al.	424/490
4767628	August 1988	Hutchinson	424/426
4844910	April 1989	Leslie	424/497
4867985	September 1989	Heafield	424/461

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
0058481	October 1986	EPX

ART-UNIT: 152
PRIMARY-EXAMINER: Page; Thurman K.
ASSISTANT-EXAMINER: Benston, Jr.; William E.
ATTY-AGENT-FIRM: Lucas & Just

ABSTRACT:

The invention relates to a preparation process of particles designed to release an effective amount of active ingredient over a predetermined period of time, said particles comprising one ore more active ingredients in admixture with a bioresorbable and/or biodegradable polymer or copolymer, and the particles thus obtained in a substantially spheroidal form and substantially deprived of active ingredient on the external covering.

35 Claims, 0 Drawing figures

☐ 13. Document ID: US 4563490 A

L14: Entry 13 of 14 File: USPT Jan 7, 1986

US-PAT-NO: 4563490
DOCUMENT-IDENTIFIER: US 4563490 A

TITLE: Composite polymeric material for biological and medical application and the method for its preparation

DATE-ISSUED: January 7, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stol; Miroslav	Prague	N/A	N/A	CSX
Tolar; Miroslav	Prague	N/A	N/A	CSX
Adam; Milan	Prague	N/A	N/A	CSX
Cefelin; Pavel	Prague	N/A	N/A	CSX
Kalal; Jaroslav	Prague	N/A	N/A	CSX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Czechoslovenska akademie ved of Praha	Prague	N/A	N/A	CSX	03

APPL-NO: 6/ 553859
DATE FILED: November 18, 1983

PARENT-CASE:
RELATED APPLICATION This patent application is a continuation-in-part of co-pending Ser. No. 283,424 filed 7/15/81, now U.S. Pat. No. 4,427,808, issued Jan. 24, 1984.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
CS	5125-80	July 21, 1980

INT-CL: [4] C07G 7/00, C08L 89/06, C02C 7/04
US-CL-ISSUED: 524/24; 524/498, 525/54.1, 525/937, 260/123.7, 523/105, 523/106, 523/113
US-CL-CURRENT: 524/24; 523/105, 523/106, 523/113, 524/498, 525/54.1, 525/937, 530/356
FIELD-OF-SEARCH: 523/105, 523/106, 523/113, 523/114, 524/21, 524/24, 524/498, 524/460, 524/845, 525/54.1, 525/937, 351/16H, 260/123.7

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4264155	April 1981	Miyata	524/557
4268131	May 1981	Miyata et al.	260/117
4388428	June 1983	Kuzma et al.	523/449

ART-UNIT: 153
PRIMARY-EXAMINER: Kight; John
ASSISTANT-EXAMINER: Nutter; Nathan M.
ATTY-AGENT-FIRM: Schaffer; Murray

ABSTRACT:

The invention relates to a composite polymeric material suitable for biological and medical applications and to the method for preparation thereof. The composite material consists of 1-99 wt. % of hydrophilic polymer or copolymer based on methacrylic or acrylic esters, 1-99 wt. % of fibrillar collagen, and up to 2.5 wt. % of a crosslinking agent, based on both polymeric components. The composite material may further comprise biologically active compounds and other auxiliary materials, as fillers and/or plasticizers. The composite material is prepared by dispersing the fibrillar collagen in a solution or a highly swollen dispersion of the synthetic hydrophilic polymer or copolymer in a lytropic agent and the subsequent removal of the lyotropic agent, thus forming a matrix of the synthetic polymer or copolymer penetrated by fibrillar collagen or vice versa. The composite material may be applied on a solid support or reinforced with glass, plastics, cellulose, or metallic materials.

6 Claims, 0 Drawing figures

☐ 14. Document ID: US 4072635 A

L14: Entry 14 of 14 File: USPT Feb 7, 1978

US-PAT-NO: 4072635
DOCUMENT-IDENTIFIER: US 4072635 A

TITLE: Organosiloxane gels

DATE-ISSUED: February 7, 1978

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jeram; Edward M.	Burnt Hills	NY	N/A	N/A

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
General Electric Company	Waterford	NY	N/A	N/A	02

APPL-NO: 5/ 584392
DATE FILED: June 6, 1975

PARENT-CASE:
The present application is a continuation-in-part of parent patent application Ser. No. 160,162, filed July 6, 1971, now abandoned.

INT-CL: [2] C08J 9/32
US-CL-ISSUED: 260/2.5S; 260/2.5B, 260/375B, 260/46.5UA, 260/46.5G, 260/46.5H
US-CL-CURRENT: 523/218; 523/113, 523/175, 523/219, 523/223, 524/492, 524/862, 528/15, 528/31, 528/32, 528/33
FIELD-OF-SEARCH: 260/46.5UA, 260/46.5G, 260/825, 260/375B, 260/2.5B, 260/46.5H

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
2797201	June 1957	Veatch et al.	260/2.5B
2806509	September 1957	Bozzacco et al.	260/2.5B
2978340	April 1961	Veatch et al.	260/2.5B
3020260	February 1962	Nelson	260/46.5R
3317455	May 1967	Blome et al.	260/37SB
3548420	December 1970	Spence	260/46.5H
3926581	February 1976	Gorden	260/46.5 UX
3928629	December 1975	Chandra et al.	260/46.5 UX
3950300	April 1976	Hittmair et al.	260/46.5 UX

ART-UNIT: 142
PRIMARY-EXAMINER: Foelak; Morton
ATTY-AGENT-FIRM: Koltos; E. Philip Voss; Donald J. Neuhauser; Frank L.

ABSTRACT:

An organosiloxane gel is made by reacting (1) an organosiloxane having a viscosity of from 10 to 10,000 centistokes at 25.degree. C. and being a copolymer consisting essentially of units of the formula R.sub.2 ViSiO.sub.0.5, RViSiO, R.sub.2 SiO and MeR.sub.2 SiO.sub.0.5, where each R is individually selected from the group consisting of methyl and phenyl radicals, Vi represents a vinyl radical and Me represents a methyl radical, at least 0.50 molar percent of the units in said copolymer being R.sub.2 ViSiO.sub.0.5 units and RViSiO units where the terminal groups are at least 50 mole percent of R.sub.2 ViSiO.sub.0.5 units and may have as the rest of the total terminal units MeR.sub.2 SiO.sub.0.5 units, (2) a liquid hydrogen siloxane of the average general formula XRMeSIO(R.sub. 2 SiO).sub.n (RHSiO).sub.m SiMeRX, where each R is as above defined and X is selected from the group consisting of H and R and n and m have such average values that the viscosity of the hydrogen siloxane is no more than 10,000 centistokes at 25.degree. C. and m is at least 1, no more than 25 molar percent of the total R radicals present in (1) and (2) being phenyl and (3) a platinum or platinum compound catalyst in an amount sufficient to furnish about at least 0.1 part per million of platinum based upon the combined weights of (1) and (2); the proportions of (1) and (2) being such that prior to reaction there is an average of from 1.4 to 1.8 gram atoms of the silicon-bonded hydrogen atoms in (2) per gram molecular weight of (1) and there being at least one vinyl siloxy units in (1) for every silicon-bonded hydrogen atom in (2), the molecular weight of (1) being calculated by the equation:

log visc.= 1.00+ 0.0123M.sup..5

where M is the molecular weight and "visc." is the viscosity of (1) in centistokes at 25.degree. C. The gel can be filled with glass microballoons to lower their specific gravity. The gel produced finds utility in collision pads in automobiles, shock absorbing bumpers, mattresses, snowmobile seats, padding and crash helmets and insulation which can be pumped into electrical conduits, among other things.

18 Claims, 0 Drawing figures

Generate Collection

Term	Documents
(13 OR 7 OR 9).USPT.	14

Display 50 Documents, starting with Document: 14

Display Format: FRO Change Format

WEST

Freeform Search

Database: US Patents Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Term:

Display: 50 **Documents in Display Format:** FRO **Starting with Number** 1

Generate: ○ Hit List ◉ Hit Count ○ Image

Search | Clear | Help | Logout | Interrupt

Main Menu | Show S Numbers | Edit S Numbers | Preferences

Search History

Today's Date: 8/28/2000